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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,537	09/10/2003	Kiyohiko Yamazaki	KAT 253	1951
23995	7590	12/30/2005	EXAMINER EJAZ, NAHEED	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			ART UNIT 2631	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/658,537	YAMAZAKI, KIYOHICO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Naheed Ejaz	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003 & 13 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,7,8,11,12,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8,11,12,16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09/10/2003, 05/25/2004</u>  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Examiner called Applicant's Attorney Mr. Allen Wood Registration No. 28, 134 on December 19, 2005 at 202-326-0222 and suggested adding claim 2 limitations into claim 1 in order to make the independent claim clear in terms of invention. Decision would not be made because Mr. Wood was not available for the coming week and he needed more time in order to get the authorization from the Applicant.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hachisuka et al. (5,598,430), hereinafter referred to as Hachisuka, in view of Weiss (5,151,922).

4. Refer to claim 1, Hachisuka teaches, demodulation of the signal (see col.1, lines 41-47), 'a mode selector (see figure 1, element 112) for selecting either of a reproduction mode of reproducing the digital signals (see figure 1, element 108, col.4, lines 14-16) and an evaluation mode of evaluating the digital signals' (see figure 1, elements 107, 109, & 110, col.4, lines 14-16) (it should be noted that in figure 1 switch 112 (claimed mode selector) is selecting between digital signal detecting circuit 108 (claimed 'reproduction mode') or the output from the digital signal detecting circuit 107

Art Unit: 2631

(claimed 'evaluation mode') according to the result of the determination by the logic discriminating circuit 111 (col.4, lines 38-48) which gets inputted by the noise detection circuit 109 and RSSI detecting circuit 110 (claimed error generator) since as it is disclosed in the specification that reproduction mode is the mode which outputs the inputted digital value directly to ADPCM CODEC without going through the error detection stage of the circuit while evaluation mode is responsible to output the digital signal through error generator to error detector (Specification, page # 8, paragraph # 0026 & page # 9, paragraph # 0027) . Hachisuka is selecting one of the circuits (figure 1, elements 108 and 107) through (figure 1, element 112) and the process of detecting noise and strength of the received signal is included when element 112 selects circuit 107 (as described above) and therefore it is considered to be equivalent to applicant's limitations of having two modes with error generator included. Furthermore, Specification does not clarify the advantage of inverting the level of the digital signal for the evaluation mode).

Hachisuka does not teach the inverting level of digital signal.

Weiss discloses, a demodulated signal (see figure 1, ' DEMODULATED SIGNAL') and inverting the digital signal (see figure 1, element 64, col.3, lines 21-28).

It would have been obvious to one ordinary skill in the art to implement the teachings of Hachisuka into Weiss in order to disable the speaker while data signal is present (selecting one of the mode depending on what type of signal is present) as taught by Weiss (see col.3, lines 21-28).

Art Unit: 2631

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hachisuka et al. (5,598,430), hereinafter referred to as Hachisuka, and Weiss (5,151,922), as applied to claim 1 above, and further in view of Shinozaki et al. (US 6,687,512), hereinafter referred to as Shinozaki.

6. Refer to claim 2, Hachisuka and Weiss teach all the limitations in the previous claim on which claim 2 depends but they fail to disclose two selectors.

Shinozaki discloses, 'a first selector' (see figure 6, element 164, col.6, lines 4-18), and 'a second selector' (see figure 6, element 168, col.6, lines 4-18)).

It would have been obvious to one ordinary skill in the art to implement the teachings of Shinozaki into Hachisuka and Weiss in order to select a destination of digital signals and a source as to be able to switch to different modes based on the types of the signals inputted as taught by Shinozaki (see col.2, lines 15-19).

7. Claims 3, 4, 7, 8, 11, 12, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hachisuka et al. (5,598,430), hereinafter referred to as Hachisuka, Weiss (5,151,922) and Shinozaki et al. (US 6,687,512), hereinafter referred to as Shinozaki, as applied to claims 1 and 2 above, and further in view of Hori et al. (US 2003/0117926), hereinafter referred to as Hori.

8. Refer to claim 3, Hachisuka, Weiss, and Shinozaki teach all the limitations in the previous claims on which claim 3 depends but they fail to disclose 'a pulse outputting circuit'.

Hori discloses, 'a pulse outputting circuit for outputting pulse signals at the predetermined timing' (see figure 2, element 110, page # 3, paragraph # 0045 and

Art Unit: 2631

0047, and page # 4, paragraph # 0054) (Note: element 103 supplies pulse to element 110); and an inverter for inverting the level of the digital signals responsive to a transmission of the pulse signals (see figure 3, element 601, page # 3, paragraph # 0045 and 0046).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Hori into Hachisuka, Weiss and Shinozaki as to detect and set the value of an error signal as taught by Hori (see page # 5, paragraph # 0073).

9. Refer to claim 4, Hachisuka, Weiss, and Shinozaki teach all the limitations in the previous claims on which claim 4 depends but they fail to disclose 'a preset value holding circuit'.

Hori discloses, 'said error generator (see figure 2, element 107, page # 4, paragraph # 0052) comprises a preset value holding circuit (see figure 2, element 108, page # 4, col.1, paragraph # 0054) which has a preset value defining a transmission timing of the pulse signals set from outside said apparatus to hold the preset value to supply the preset value to said pulse outputting circuit (see figure 2, element 110, figure 3) and (page # 3, paragraph # 0046 and 0047).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Hori into Hachisuka, Weiss and Shinozaki in order to divide and synchronize and external clock or pulse as taught by Hori (see page # 1, col.2, paragraph # 0013, lines 45-49).

Art Unit: 2631

10. Refer to claim 7, Hachisuka, Weiss, and Shinozaki teach all the limitations in the previous claims on which claim 3 depends but they fail to disclose an error detector explicitly.

Hori discloses, 'an error detector (see figure 2, element 109A or 109B) interconnected to said mode selector for detecting an error contained in the digital signals (see figure 2, element 102); said error detector supplying said pulse outputting circuit (see figure 2, element 110) with an output timing defining a field of the digital signal in which check data for received data are held' (see page # 3, col.2, paragraph # 0047).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Hori into Hachisuka, Weiss and Shinozaki in order to have signals in synchronization with pulse generator as taught by Hori (see page # 3, col.2, paragraph # 0049, lines 27-30).

11. Claim 8 is rejected under the same rational as claim 7 above.

12. Refer to claim 11, Hachisuka, Weiss, and Shinozaki teach all the limitations in the previous claims on which claim 11 depends but they fail to disclose 'a sync pattern detector'.

Hori discloses, 'a sync pattern detector interconnected to said mode selector for detecting a sync pattern contained in the digital signals (see figure 2, elements 102 and 105); said sync pattern detector supplying said pulse outputting circuit with an output timing defining a field of received data which follows the sync pattern and holds check

Art Unit: 2631

data' (see figure 2, elements 102, 105, and 106, page # 3, col.2, paragraph # 0050 and page # 5, col.2, paragraph # 0070).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Hori into Hachisuka, Weiss, and Shinozaki as to detect the fix pattern and output a sync pattern detection as taught by Hori (see page # 2, col.1, paragraph # 0018, lines 17-20).

13. Claim 12 is rejected under the same rational as claim 11.

14. Refer to claim 16, Hachisuka, Weiss, and Shinozaki teaches all the limitations in the previous claims on which claim 16 depends but they fail to disclose an error detector and a time selector explicitly.

Hori discloses, 'an error detector for detecting an error contained in the digital signals (see figure 2, elements 109A, and 109B combined, page # 4, paragraph # 0053 and 0058); and a timing selector for selecting an output timing supplied from either of said error detector and said sync pattern detector' (see figure 2, element 106) and (page # 3, paragraph # 0049 and page # 4, paragraph # 0052).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Hori into Hachisuka, Weiss, and Shinozaki in order for a time selector to check if the inputted signal by error detector represents the presence or absence of error signal as taught by Hori (see page # 4, col.1, paragraph # 0052, lines 9-12) and if the inputted sync detection signal represents the absence or presence of the detection to timing generator as taught by Hori (see page # 3, paragraph # 0049, col.2, lines 27-46 and paragraph # 0050).



Art Unit: 2631

15. Claim 17 is rejected under the same rationale as claim 16 above.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Retzer et al. (5,465,404) disclose communications receiver with an adaptive squelch system.
- McDonough (5,778,024) teaches dual-mode communications processor.
- Sutphin et al. (4,663,765) disclose data muting method and apparatus for audio-digital communications systems.

***Contact Information***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naheed Ejaz whose telephone number is 571-272-5947. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2631

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N.E.  
12/22/2005

Naheed Ejaz  
Examiner  
Art Unit 2631

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